

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: RSA

Report Number: P21908-R2

Luminaire Tested: **CSHRN30MED11**

Issue Date: 3/3/2020

**Test Information**

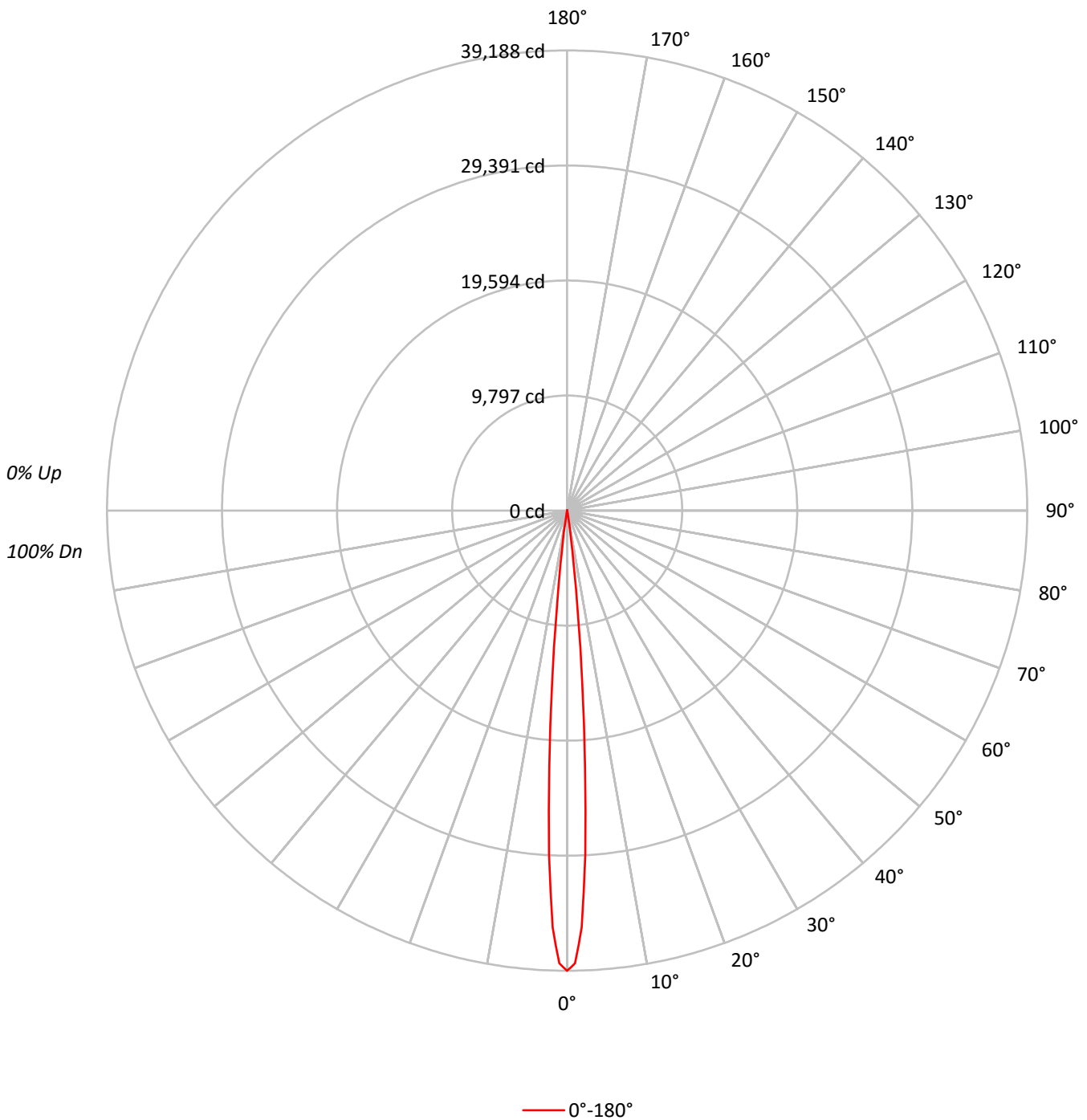
Test Method: LM-79-08  
Report Number: P21908-R2  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: CSHRN30MED11  
Description: \*\*\*THIS IS A REVISION OF P21908 TO UPDATE CATALOG  
NUMBER\*\*\*COMBOLIGHT ONE 18W LED HEAD, 7 LED UNIT SPOT  
DISTRIBUTION,3000K  
---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS  
CREATED USING A 500 WATT, NIST TRACEABLE, AND  
OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER  
WITH TEST DISTANCE OF 28.75 FEET---  
Light Source: (7) SMT LEDS  
XPG  
Ballast/Driver: (1) MAGTECH ELECTRONIC DRIVER  
LPT-1020-24-C0700

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 999.1 lumens  
Efficiency: N/A  
Efficacy: 58.1 lumens/watt  
Spacing Criteria (0/90/45): 0.15 / 0.15 / 0.14  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 0.1466  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20	20	20	20	20	20	20											
RC	80	70	50	30	10	0												
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0			
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	116	114	113	112	114	112	111	110	108	107	106	105	104	103	101	101	100	99
2	114	111	109	107	112	110	108	106	107	105	104	104	103	102	101	100	100	98
3	112	109	106	104	110	107	105	103	105	103	102	103	101	100	101	100	99	98
4	110	107	104	102	109	106	103	102	104	102	100	102	101	99	101	99	98	97
5	109	105	103	101	108	104	102	100	103	101	99	102	100	99	100	99	98	97
6	108	104	101	100	107	103	101	99	102	100	99	101	99	98	100	99	97	97
7	107	103	100	99	106	102	100	98	101	99	98	101	99	98	100	98	97	97
8	106	102	100	98	105	102	99	98	101	99	98	100	98	97	100	98	97	96
9	105	101	99	98	104	101	99	97	100	98	97	100	98	97	99	98	97	96
10	104	101	99	97	104	100	98	97	100	98	97	99	98	97	99	98	96	96

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	4281710
5°	1610623
10°	66568
15°	7013
20°	3604
25°	2893
30°	2902
35°	1334
40°	713
45°	155
50°	680
55°	762
60°	1311
65°	517
70°	319
75°	2533
80°	3775
85°	3761



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	929.6	93.0
10°-20°	29.8	3.0
20°-30°	12.0	1.2
30°-40°	10.9	1.1
40°-50°	1.6	0.2
50°-60°	2.2	0.2
60°-70°	2.9	0.3
70°-80°	3.6	0.4
80°-90°	6.5	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	971.3	97.2
0°-40°	982.2	98.3
0°-60°	986.1	98.7
0°-90°	999.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	999.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	39188	
5°	14685	930
15°	62	30
25°	24	12
35°	10	11
45°	1	2
55°	4	2
65°	2	3
75°	6	4
85°	3	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	39188
1°	38564
2°	35522
3°	29383
4°	21844
5°	14685
6°	8779
7°	4665
8°	2361
9°	1200
10°	600
11°	302
12°	177
13°	103
14°	82
15°	62
17.5°	50
20°	31
22.5°	27
25°	24
27.5°	26
30°	23
32.5°	28
35°	10
37.5°	19
40°	5
42.5°	2
45°	1
47.5°	1
50°	4
52.5°	1
55°	4
57.5°	0
60°	6
62.5°	1
65°	2
67.5°	5
70°	1
72.5°	2
75°	6
77.5°	2
80°	6
82.5°	7
85°	3
87.5°	11



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CANDELA DISTRIBUTION (continued):

90° |  $\frac{0^\circ}{0}$

(END OF REPORT)